



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Handwritten signature/initials

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,944	10/15/2003	Anthony Bruce Crawford		7643

7590 02/23/2005

Dr. Anthony Bruce Crawford
230 West Lake Circle
Madison, AL 35758

EXAMINER

CHUNG, DANIEL J

ART UNIT PAPER NUMBER

2672

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/685,944	CRAWFORD ET AL.	
	Examiner	Art Unit	
	Daniel J Chung	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-16 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

The drawings are objected to because "Line Skip Over Feature" in Fig 3 is misspelled as "Line Sip Over Feature". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

Please review the application and correct all informalities.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10-11 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to independent claim 10, the phrase "...to solve a wide class of problem." it is not understood as to how one determines what is "a wide class of problem" should be? Thus, the claim is vague and indefinite.

With respect to independent claim 11, the phrase "extremely effective and highly efficient bit level manipulations.." it is not understood as to how one determines what is "extremely effective and highly efficient bit level manipulations" should be? Thus, the claim is vague and indefinite.

Claim 13 recites the limitation "the solution" in line 1 of claim 13. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8 and 10-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Fall et al (5,991,515).

Regarding claim 1, Fall et al discloses that the claimed feature of a method for supporting the automatic creation of high quality drawings that are free from graphics and text overwrites, comprising: a series of drawing plane bitmaps [i.e. 422,120,122,124] constructed by stroking graphics [G,I] and text elements [T] into equivalent pixels sets that represent committed drawing graphics [122,124] and proposed drawing graphics [120]; the use of bitmaps to dynamically track the ongoing state of committed drawing graphics; the use of bitmaps to compare proposed drawing graphics with already committed drawing graphics to determine the quality [i.e. parameters shown in Fig 4e,4f,13a] of white space ["white space"] available for the placement of proposed new graphics; the use of control variables and status variables to guide adjustments along a vector, or about a rotation point, as a means of moving proposed new graphics into locations of white space. (See Fig 2d, Fig 4d, Fig 4e, Fig 4f, Fig 13a)

Regarding claim 2, Fall et al discloses that bit level manipulations are used to track and compare committed and proposed drawing bitmaps to quantify the quality of

white space available in the vicinity of tentative placement coordinates. (See Fig 4e, Fig 4f, Fig 13a, col 5 line 16-39)

Regarding claim 3, Fall et al discloses that control variables enable client applications to activate and manipulate the behavior of the white space algorithm. (See Fig 4e, Fig 4f, Fig 13a, col 1 line 44-56)

Regarding claim 4, Fall et al discloses that status variables quantify the result of tracking and comparison operations and provide client applications with essential information to determine the quality of white space. (See Fig 4e, Fig 4f, Fig 13a, col 5 line 16-39)

Regarding claim 5, Fall et al discloses that primary, secondary and supplementary slide vectors define the direction along which adjustments are made to move a proposed tentative graphics element into a location of white space. (See Fig 4e, Fig 4f, Fig 13a)

Regarding claim 6, Fall et al discloses that a point at a given radius to a given coordinate and a rotation about which adjustments are made to move a proposed tentative graphics element into a location of white space. (See Fig 4e, Fig 4f, Fig 13a)

Regarding claim 7, Fall et al discloses that control variables include halos [i.e. text with bounding box] around graphics elements for controlling the proximity of proposed tentative graphics to committed graphics. (See Fig 4e, Fig 13a)

Regarding claim 8, Fall et al discloses that the white space algorithm operates as a server type nucleus that can be utilized by a plethora of different client applications from virtually any discipline. (See Fig 4e, Fig 4f, Fig 13a, col 1 line 44-56)

Regarding claim 10, Fall et al discloses that status variables ensure the complete generality of the algorithm and provide information to client applications that can be applied to solve a wide class of problem. (See Fig 4e, Fig 4f, Fig 13a, col 5 line 16-39)

Regarding claim 11, Fall et al discloses that extremely effective and highly efficient bit level manipulations are employed with a logical OR being used to add to the bit map and a logical AND used to compare a proposed new graphic element with previously drawn graphic elements. (See Fig 4e, Fig 4f, Fig 13a, col 5 line 16-39)

Regarding claim 12, Fall et al discloses that text elements are represented in the bitmap as a set of parallel lines and are used for the purpose of overwrite detection. (See Fig 2d)

Regarding claim 13, Fall et al discloses that the solution is highly scalable providing performance levels that are linear and proportional to the total number of graphics elements in the completed drawing. (See Fig 4e, Fig 4f, Fig 13a)

Regarding claim 14, Fall et al discloses that white space is located through the use of efficient bitmap manipulations to compare the additional graphics with already committed graphics to provides performance levels for comparisons that are independent of the complexity and density of the committed graphics. (See Fig 4e, Fig 4f, Fig 13a, col 5 line 16-39)

Regarding claim 15, Fall et al discloses that bitmaps are also used to represent a 'must hit' filled polygon region that is used to ensure maximum overlap for the proposed graphics, achieved by inverting the objective of the bit level comparisons in favor of an overlay. (See col 15 line 1-16)

Regarding claim 16, Fall et al discloses that the text elements that contain more than a single word, may be split into equivalent multi-line text elements when sufficient white space cannot be located for the initial single line text element. (See Fig 4e, Fig 4f)

Allowable Subject Matter

Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowable subject matter: The present invention is directed to create high quality computer based drawing. The above identified claim includes the uniquely distinct features "control variables allow a skip over feature to be enabled in order to suppress the drawing of a portion of a line over dense areas of committed graphics." The closest prior art, Fall et al (5,991,515) discloses a similar system, either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Chung whose telephone number is (703) 306-3419. He can normally be reached Monday-Thursday

Art Unit: 2672

and alternate Fridays from 7:30am- 5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael, Razavi, can be reached at (703) 305-4713.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:


(703) 872-9306 (Central fax)

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

djc
February 8, 2005



MICHAEL RAZAVI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600